Government Polytechnic Hamirpur (H.P.)
Lesson Planning (Theory)

Branch: Electrical Engg.
Subject: Mathematics-I
Teacher: Subhash Chand

Semester: Ist
Session: August 2025- November2025
Laboratory:

S. No.	Week	No. of Lectures	Chapter/Unit Description		Reference Resources	Remarks
1	3rd Week of August	4		Introduction of Mathematics and Trigonometry and concepts of angles		
2	4th Week of August	5		concepts of angles and measurements of angles in degrees, grades and radians and their conversions		
3	5th Week of August	5		T-ratios of some allied angles, Sum, difference formulae and their applications.		
4	1st Week of September	5		Product formulae and Multiple & submultiple angles, Graphs of sinx, cosx , tanx, exp(x) etc.		
5	2nd Week of September	4		Concept of Limits and Functions		
6	3rd Week of September	5		Differentiation, Differentiation of exp x, sin x and cos x and tanx by 1st Principle		
7	4th Week of September	5		Differentiation of sum, product and quotient of functions, differentiation of function of a function		
8	5th Week of September	2	Differential calculus	Differentiation of trigonometric functions.	R1, R2 and R3	
9	1st Week of October	2		Differentiation of inverse trigonometric functions.		
10	2nd Week of October	3		Differentiation of logarithmic differentiation, exponential differentiation		

11	3rd Week of October	3		Complex numbers: Definition, real and Imaginary part of complex number, conjugate, modulus & amplitude of a complex number		
12	4th Week of October	2		Addition, Subtraction, Multiplication and Division of complex numbesr, Polar and Cartesian representation of a complex number and its conversion,		
13	5th Week of October	4		De-movier's theorem and its application		
14	1st Week of November	1	Algebra	Partial fractions (linear factors)	R1, R2 and R3	
15	2nd Week of November	3		Partial fractions (linear factors, repeated and non-repeated linear factors),		
16	3rd Week of November	5		Permutations and combinations		
17	4th Week of November	5		Binomial theorem for positive integral index and any index, first and second binomial approximation with applications		
18	5th Week of November	3		Binomial theorem for positive integral index and any index, first and second binomial approximation with applications		

Reference Resources

R1: Mathematics-I by Satish Kumar Sharma

R2: Appllied Mathematics by RD Sharma

R3 : Elementary Engg. Mathematics-I by BS Grewal

Signature of Teacher

(01.08.2025)

Signature of HOD
Applied Sc. & Humanities